CLAIMS

1. Internal flame gas burner comprising a gas injector (1), a vacuum tube (2), or venturi, ensuring an induction of primary air, a pot (3), and a cap (4), the cap covering the pot and together with the pot defining an annular distribution chamber (5) for a fuel mixture of air and gas, the chamber (5) having an internal edge (51) that surrounds the center (50) of this chamber and that is perforated with flame exit ports (510), and the vacuum tube (2) having an inlet (20) open to the ambient air, first and second longitudinal sections (21, 22) having, respectively, convergent and divergent profiles, and an outlet (23) opening into the annular chamber (5), the first section (21) originating at the inlet (20) of the tube (2), the second section (22) succeeding the first section (21) and ending at the outlet (23) of the tube, and the injector (1) being relatively closer to the inlet (20) of the vacuum tube (2) than to the outlet (23) of this tube, characterized in that the vacuum tube (2) extends longitudinally along an axis (X) inscribed substantially in a mid-plane (P) of the annular chamber

(5), and in that this tube (2) has a length (L2) at most equal to twice the greatest distance (R) separating the internal edge (51) of the chamber (5) from the center (50) of this chamber.

2. Internal flame gas burner as claimed in claim 1, characterized in that the internal edge (51) of the annular chamber (5) is circular.

3. Internal flame gas burner as claimed in claim 2, characterized in that the length (L2) of the tube (2) is at most equal to the diameter (2·R) of the internal edge (51) of the chamber (5).

4. Internal flame gas burner as claimed in claim 2 or 3, characterized in that the length (L2) of the tube (2) is at most equal to the radius (R) of the internal edge (51) of the chamber (5).

5. Internal flame gas burner as claimed in any of claims 2 to 4, characterized in that the tube (2) opens out into the chamber (5) in a radial direction in relation to the internal edge (51) of the latter, and in that this chamber (5) is equipped with a distribution baffle (6) for the fuel mixture, shaped like an arc of a circle and interposed between the outlet (23) of the tube (2) and at least some of the flame exit ports (510) arranged opposite this outlet (23).

6. Internal flame gas burner as claimed in any of the preceding claims, characterized in that the outlet (23) of the tube (2) has respectively, in the mid-plane (P) and perpendicular to the mid-plane (P), a width (L23) and a height (H2), the height (H2) being less than the width (L23).

7. Internal flame gas burner as claimed in claim 6, characterized in that, perpendicular to the mid-plane (P), the second section (22) of the tube has a substantially constant height (H2) up to the outlet (23) of the tube.

8. Internal flame gas burner as claimed in claim 7, characterized in that, perpendicular to the mid-plane (P), the second section (22) of the tube (2) and the chamber (5) have substantially equal heights (H2, H5).

9. Internal flame gas burner as claimed in claims 5 and 8, characterized in that the baffle (6) occupies only a portion of the height (H5) of the chamber, and is arranged closer to the cap (4) than to the pot (3).

10. Internal flame gas burner, as claimed in any of the preceding claims, characterized in that it comprises a device (7) for holding the injector (1), itself including a gas inlet line (71), a support plate (72), and a stirrup (73), the injector being mounted at a free end (710) of the gas inlet line (71), the support plate (72) being integral with the vacuum tube (2) and having an opening (720) opposite the inlet (20) of this tube (2), and the stirrup (73) being integral with the support plate (72) and supporting the gas inlet line (71) at a distance from the opening of the support plate (72).

11. Internal flame gas burner as claimed in any of the preceding claims, characterized in that the injector (1) opens out into the first section (21) of the vacuum tube (2).

12. Internal flame gas burner as claimed in any of the preceding claims, characterized in that the vacuum

tube (2) is formed from two parts (2A, 2B) that are substantially symmetrical to each other with respect to the mid-plane (P) of the annular chamber (5).